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teaching nutrition

IN THE ELEMENTARY SCHOOL

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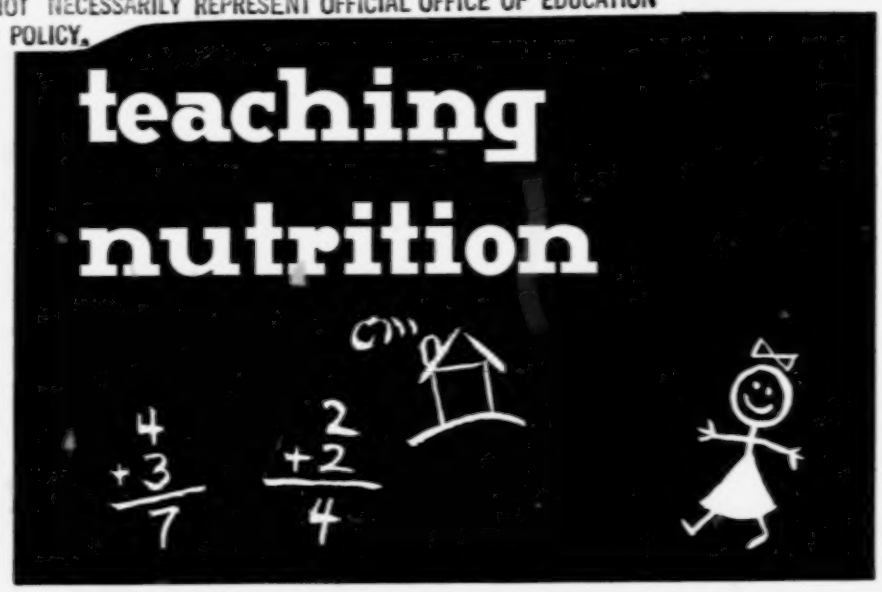

IN THE ELEMENTARY SCHOOL

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Foreword

THE ROLE OF THE ELEMENTARY CLASSROOM TEACHER in the area of nutrition education is extremely important. The saying "you are what you eat" cannot be over-emphasized and points up the need for learning to eat and enjoy a wide variety of foods.

By teaching and example, the elementary school teacher is often able to help children learn to know and like many foods. The teacher can also help children establish desirable food habits.

This pamphlet is divided into three sections. The first section presents basic information on nutrition for teachers. The second section includes activities for nutrition education suitable for (a) the first, second, and third grades, and (b) the fourth, fifth, and sixth grades. The third section lists sources of information and teaching aids on nutrition.

Contents

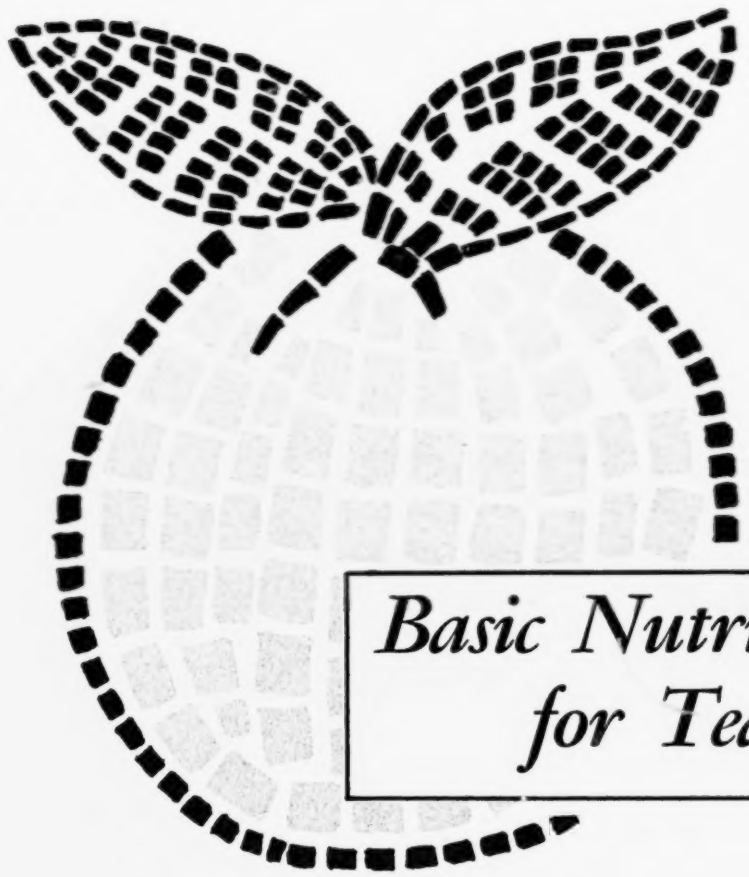
BASIC NUTRITION FACTS FOR TEACHERS

- The Four Food Groups
- Nutrients and Principal Food Sources
- Planning Meals for the Day
- Between Meal Snacks
- Forming Good Eating Habits
- The Important Food Needs of Children

NUTRITION TEACHING

- Activities for the Primary Level
- Activities for the Intermediate Level

RESOURCE MATERIAL



Basic Nutrition Facts for Teachers

THE FOOD YOU EAT EACH DAY should supply you with many different nutrients. *Protein* is necessary for growth and for repair of the body. *Minerals* and *vitamins* are required for growth and to keep the body functioning properly. *Fats* and *carbohydrates* are necessary for energy.

While water is not a food, it does perform many important functions in the human body. It carries food to the cells and carries waste products away from them. It is essential for the

digestion and absorption of food and for regulating body temperature. In addition to the water you drink, you get water from the food you eat and from fluids such as coffee and tea.

Although most foods contain more than one nutrient, no one food supplies all of the nutrients in the amounts you need. Therefore, in order to select food wisely, you should plan meals which will include the kinds of food which will supply all the nutrients in the amounts you need. A varied diet is the best way to make sure all the essential nutrients are being provided.

THE FOUR FOOD GROUPS

The following Four Food Groups provide a guide for planning daily meals to help you get the nutrients you need from a variety of foods. Select most of your food from the Four Food Groups, adding other foods as you wish to appeal to your appetite.

Choose at least the minimum number of servings from each of the Four Food Groups. The size of servings will vary according to age and activity.

Choose foods to complete your meals from foods in the Four Food Groups and from foods not listed in these groups. Additional foods should add enough calories to complete your food energy needs. Children need enough food energy to support normal growth; adults need enough food energy to maintain body weight.

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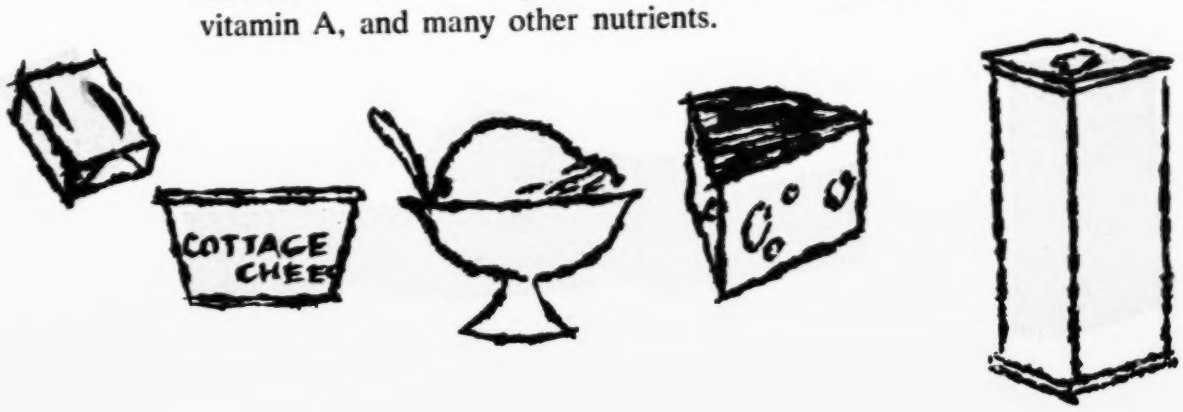
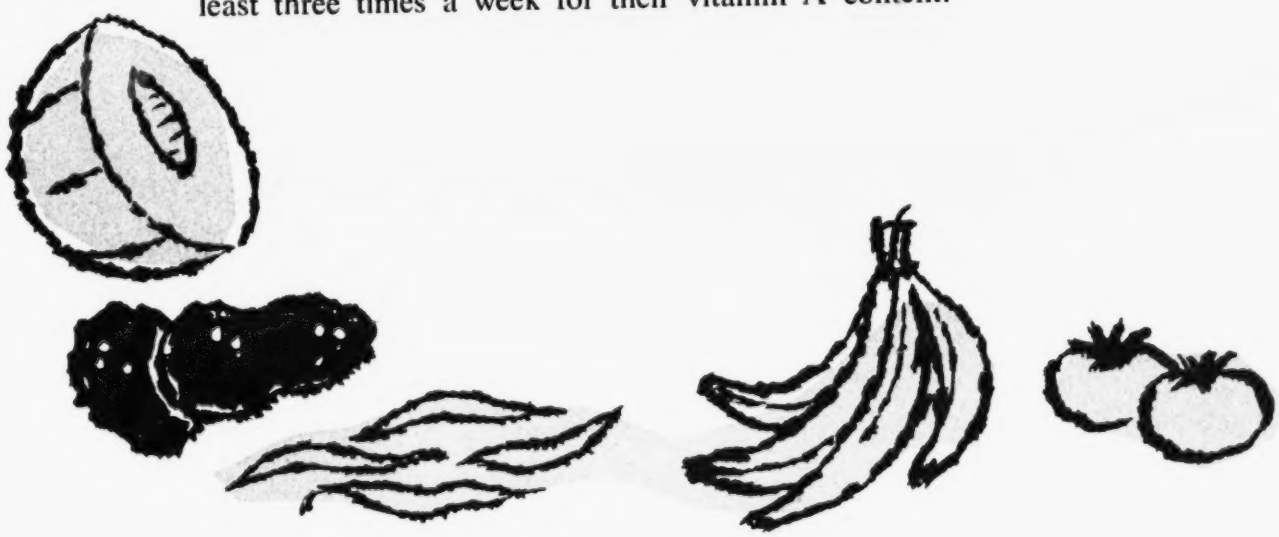
Milk Group. Choose some milk every day. Recommended amounts of whole fluid milk are as follows: For children, 3 to 4 eight-ounce glasses; for teenagers, 4 or more eight-ounce glasses; for adults, 2 or more eight-ounce glasses; and for pregnant women, 4 or more eight-ounce glasses.

Foods included in the Milk Group are fluid whole milk, skim milk, evaporated milk, dry milk, and buttermilk. Cottage cheese, cream cheese, cheddar cheese, and ice cream are also included. Milk is the leading source of calcium, which is needed for bones and teeth. Milk also provides protein of high quality, riboflavin, vitamin A, and many other nutrients.



Vegetable - Fruit Group. Choose four or more servings every day, including a citrus fruit or juice—such as orange, grapefruit, or tomato—or other fruit or vegetable important for vitamin C. A serving is the equivalent of half a cup of vegetables or fruit, or one medium apple, banana, orange, or potato, or half a medium grapefruit or cantaloupe.

Fruits and vegetables are valuable for the vitamins and minerals they contain. Choose dark green and deep yellow vegetables at least three times a week for their vitamin A content.



Meat Group. Choose two or more servings every day. A serving is equivalent to 2 to 3 ounces of lean meat (boneless), poultry, or fish; 2 eggs; 1 cup of cooked dried beans, dried peas or lentils; or 4 tablespoons of peanut butter.

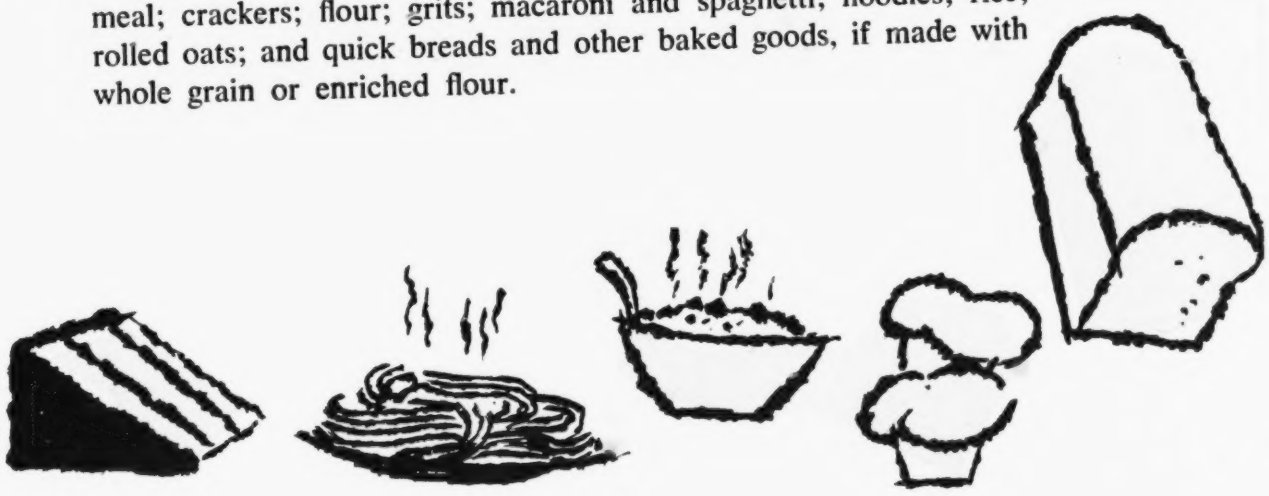
The Meat Group is important for the protein these foods contain. Protein is needed for growth and repair of body tissues, muscles, organs, blood, skin, and hair. This group also provides iron, thiamine, riboflavin, and niacin.

Included in the Meat Group are beef, veal, lamb, pork, heart, liver and kidneys, as well as other variety meats; poultry, eggs, fish, and shellfish; and as alternates, dried beans, dried peas, lentils, nuts, peanuts, and peanut butter.

Bread - Cereal Group. Choose four or more servings each day. A serving is the equivalent of 1 slice of bread; 1 ounce of ready-to-eat cereal; ½ to ¾ cup of cooked cereal, cornmeal, grits, macaroni, noodles, rice, or spaghetti.

Foods in this group supply protein, iron, B vitamins, and food energy.

Foods included in this group are all breads and cereals. Specifically, these are breads; cooked cereals; ready-to-eat cereals; cornmeal; crackers; flour; grits; macaroni and spaghetti; noodles; rice; rolled oats; and quick breads and other baked goods, if made with whole grain or enriched flour.



Other Foods. To round out your meals and satisfy your appetite, you will use some foods not listed in any of the Four Food Groups. For example, you will use butter, margarine, fats, oils, sugars, and other foods which are ingredients of baked and mixed dishes. These other foods may add to the total nutrients as well as supply food energy.

PROTEIN

Essential for	Important Food Sources
Building and repairing all body tissues. Materials for substances that regulate body processes.	Meat, fish, poultry. Milk, eggs, and cheese. Cereals, nuts, dried peas, peanut butter, beans. Some bread and vegetables can be useful in supplementing the protein from animal sources.

MINERALS

Calcium

Essential for	Important Food Sources
Building and maintaining bones and teeth. Contracting and relaxing muscles. Clotting the blood.	Milk, cheese, dried beans, and peas. Vegetables (some greens). Bread.

Iron

Essential for	Important Food Sources
Building blood. Enabling blood to carry oxygen from lungs to body cells.	Lean meats, especially liver, kidney, heart. Egg yolk. Dark green, leafy vegetables. Whole grain and enriched cereals and breads. Dried beans, peas, and other legumes. Dried fruits. Dark molasses.

Iodine

Essential for	Important Food Sources
Proper functioning of thyroid gland.	Iodized salt. Sea foods.

VITAMINS

Vitamin A

Essential for

Adapting eyes to light and dark.
Health of lining of mouth, nose, and other body cavities.
Health of skin and hair.

Important Food Sources

Whole milk, cream, butter, margarine, cheese, egg yolk.
Liver.
Fish liver oils.
Deep green and yellow vegetables and fruits.

Vitamin D

Essential for

Helping body make use of calcium and phosphorous in building strong bones and teeth. Is needed through adolescence, at least.

Important Food Sources

Fish liver oils.
Milk fortified with vitamin D.
Liver.
Direct sunlight—produces vitamin D in the oils of the skin.

Vitamin B_1 or Thiamine

Essential for

Aiding appetite and digestion.
Protecting nervous system.
Releasing energy from carbohydrates.

Important Food Sources

Pork, liver, heart, kidney.
Milk.
Whole grain and enriched cereal products.
Dried beans, peas, and peanuts.

Vitamin B_2 or Riboflavin

Essential for

Growth.
Health of mucous membrane, skin, and eyes.
Utilizing carbohydrates and protein.

Important Food Sources

Milk and milk products.
Liver—calf, pork, beef.
Lean pork, veal, lamb, and beef.
Salmon.
Eggs.
Whole grain or enriched cereal products.
Green leafy vegetables.

Niacin or Nicotinic Acid

Essential for

Normal functioning of the skin and digestive tract.
Efficient utilization of protein.

Important Food Sources

Liver.
Fish, such as tuna, salmon.
Lean meat, poultry.

Whole grain or enriched cereal products.
Dried beans and peas.
Peanuts, peanut butter.

Vitamin C or Ascorbic Acid

Essential for

Strengthening blood capillaries.
Helpful in healing wounds.
Forming sound teeth and bones.

Important Food Sources

Citrus fruits — oranges, grapefruit, lemons, limes, tangerines.
Tomatoes, raw or canned.
Strawberries.
Cantaloupe.
Dark green vegetables, including green peppers and cabbage.

CARBOHYDRATES

Essential for

Energy for all body processes, including growth and activity.

Important Food Sources

Sugar, honey, molasses, syrups, jams, jellies.
Fruits.
Bread, crackers, cereals.
Flour, meal, spaghetti, macaroni, noodles.
Potatoes, sweet and white.
Vegetables in general.
Dried peas, beans, and other legumes.
Dried dates, figs, prunes.
Milk.

FATS

Essential for

Energy for work and play.
Absorption of essential vitamins.

Important Food Sources

Butter, margarine, cream cheese.
Milk (whole).
Vegetable oil (corn, olive, cottonseed, soybean, peanut).
Meats.
Bacon and other fat meat, drippings.
Eggs.
Nuts.
Salad dressing.

PLANNING MEALS FOR THE DAY

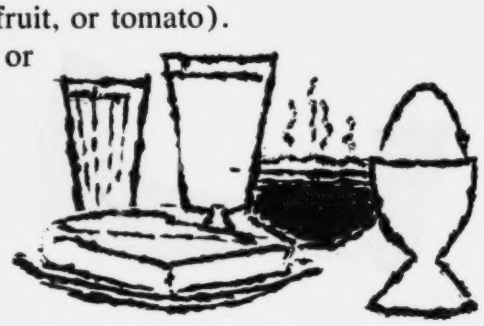
Meals should be planned for the whole day, rather than one meal at a time. Meals are more pleasing if there is variety in color, shape, flavor, and texture in the food served. Meal patterns may differ from those described below in some parts of the United States and in population groups, but may still provide good nutrition.

Breakfast

Breakfast is often the most neglected meal of the day. A substantial meal is needed to provide energy for the morning activities, because 12 to 14 hours have elapsed since the last meal. Breakfast should supply from one-fourth to one-third of the day's food needs. Studies show that children who eat a good breakfast tire less easily and can do more effective work than those who either eat a poor breakfast or none at all.

Suggested Breakfast Pattern

Fruit or fruit juice (orange, grapefruit, or tomato).
Egg (at least 3 or 4 eggs a week) or
Cereal—whole grain or restored.
Bread—enriched or whole grain.
Butter or margarine.
Milk.

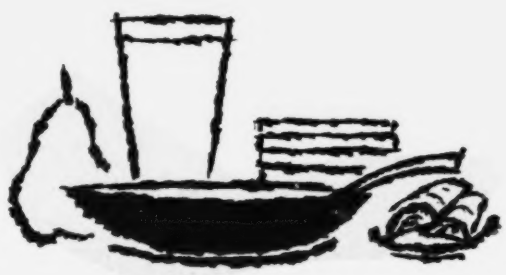


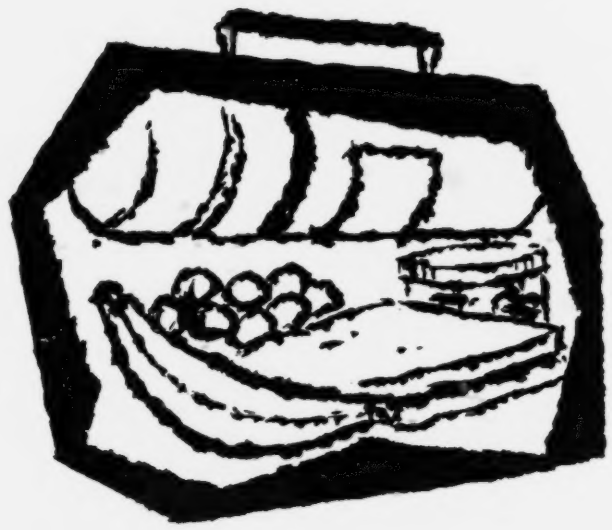
Lunch or Supper

Lunch should be planned to supply about a third of the day's food requirements. This is important, whether it is a packed lunch or is eaten at home, or in a cafeteria or restaurant.

Suggested Lunch Pattern

Main dish—hearty soup, stew, casserole dish, eggs, cheese, etc.
Vegetables—cooked or raw.
Bread—enriched or whole grain.
Butter or margarine.
Fruit or simple dessert.
Milk.





In many families, it is necessary for children to carry lunches to school. Meat or cheese sandwiches made from enriched or whole grain bread usually form the main part of the lunch. Crisp, raw vegetables, such as carrot or celery sticks and radishes, wrapped in waxed paper, may be included. A thermos bottle may contain cream soup, hot cocoa, or milk. A fruit, such as an orange, apple, or banana, or a small jar of cooked or canned fruit, makes a nutritious dessert.

The school lunch has an important part to play in the nutrition of children. Parents and teachers should encourage children to participate in the school lunch program where it is available. Ideally, the lunch supplements the home meals of children, provides experiences with foods which help to develop good food habits, and offers practice in making wise meal selections.

Dinner

Dinner is the main meal of the day. It should be planned around breakfast and lunch to complete the day's food needs.

Suggested Dinner Pattern

Meat, poultry, or fish (or alternate).
Two vegetables, cooked or raw (one a green leafy or yellow).
Bread—enriched or whole grain.
Butter or margarine.
Simple dessert or fruit.
Milk.

BETWEEN-MEAL SNACKS

Growing active children often require food between meals to satisfy a very real hunger. However, between-meal snacks should not be so substantial that appetite for meals is lost. Milk, graham crackers, fruit, tomato juice, and fruit juices are suggested for these between-meal snacks.

Snack foods that are high in sugar content, such as candy, cookies, and soft drinks, should be discouraged. They not only contribute to poor dental health, but interfere with children's appetite for the other more nourishing foods.

FORMING GOOD EATING HABITS

Children's attitudes toward food, eating, and mealtime are formed early in life, usually following the example set by their parents. If adults eat a variety of foods, children are more likely to eat a variety also.

THE IMPORTANT FOOD NEEDS OF CHILDREN

The food requirements of a child are greater in proportion to his size than those of an adult. An adult's food must supply him with energy and heat, maintain his body processes, and repair his worn-out tissues. A child's food must do all these things and must also build new tissues constantly, as he grows taller and gains weight year by year.

A calorie is a unit used to measure the capacity of a food for producing warmth and energy. Almost every food provides some calories. Proteins and carbohydrates (starches and sugars) have the same calorie value, weight for weight. Fat is more concentrated, having more than twice the energy value of the other nutrients. The process of utilizing food in the body for warmth and energy involves many complex chemical reactions.

A number of pocket-sized guides are available which list the calorie values of various foods.

Most adults have an abundance of calories. Their problem involves getting the essential nutrients daily without consuming excess calories. Using the Four Food Groups for planning meals helps to insure that you eat foods containing the essential nutrients.

Children from 7-9 years of age need approximately 2,000 calories daily. From 10-12 years, the requirements for boys jumps to 2,500 calories daily and for girls to 2,300 calories daily. Compare these with the 2,100 calorie daily requirement for adult women who are not engaged in vigorous activity.

Nutrition Teaching

NUTRITION EDUCATION IS AN IMPORTANT ASPECT of health teaching in the elementary grades. During childhood, many new food habits are being formed. Through classroom work with children, both they and their parents can be helped toward improved attitudes regarding food, and toward improved eating habits.

If children are to be helped to practice what they learn about food selection, the co-operation of parents must be enlisted. Sharing information about the food habits of children between home and

school is an effective way of strengthening this co-operation. Unless the home, school, and other community agencies work together and are consistent in their teaching and practice, results are not likely to be permanent.

It is to be expected that through nutrition teaching in the elementary grades, boys and girls will establish desirable habits of food selection, develop a favorable attitude toward a variety of foods, learn how to compare their daily food intake with an accepted standard such as the Four Food Groups, and gain the ability to plan, prepare, and serve a simple meal.

A functional program of nutrition education in the school utilizes the regularly organized on-going activities of the school curriculum and the school-community environment to help children improve their eating habits. Experiences of everyday living are needed to develop habits and attitudes that will continue to function throughout life. For example, merely reading, talking about, or drawing pictures of how to choose food, are unlikely to result in the desired outcomes of habits, attitudes, and appreciations. More dynamic and realistic activities, making use of actual situations, are necessary.

If nutrition is to be included in health education at all grade levels during the elementary school years, it should be a planned but flexible program, to eliminate duplication of material. Flexibility will enable teachers to take advantage of teachable situations that may occur unexpectedly.

Probably such a program is best when evolved gradually by teachers, parents, and children and when based on a general knowledge of the needs and interests of children at each grade level. Parents and teachers can gain insight into the nutrition needs of

children through observation, surveys, and questionnaires, for example. Such needs will vary from community to community and for groups within communities.

The basic interests of children differ somewhat from level to level, but as in other subject areas, teachers use these as a starting point for broadening them progressively. Thus, a child's interest in growing can be broadened to include the kinds of foods which will help him to grow.

The remainder of this section includes some suggested teaching activities for the primary level and the intermediate level.

ACTIVITIES FOR THE PRIMARY LEVEL

At the primary level, the child is at first closely bound to his home environment. Only in the later primary years does he become much concerned with his larger environment. At first, too, he is quite willing to follow directions without question; only later does he begin to ask "why" and "how." During the first and second grades, the teacher can lay the foundation for learning to like a variety of foods, for instance, by centering activities around his home life. The older primary child can begin to explore the sources of his food supply and the role of community helpers.

There should be little attempt to teach nutrition facts at the primary level; rather, the teacher should emphasize creating a favorable attitude toward food and establishing good food habits.

Classroom experiences should be planned to be real and interesting to pupils. Talk about desirable behavior is not as effective as activities which help pupils to *act* in the desired way.

Class Field Trips or Visits

After planning with the lunchroom manager, pay a class visit to the kitchen at the school lunchroom to see how foods are prepared. Several short trips might be most effective, followed by a group discussion of what the children see. Oral and written reports may be given.

Have the class visit the local grocery store to look for new foods. Talk about where the grocer gets his food. Some foods are grown locally and others are shipped in. Follow the visit with discussion and reports.

Have pupils visit a farm, bakery, ice cream plant, or dairy. Follow the visit with discussion and reports.

Food - Tasting Parties

Plan food-tasting parties to introduce foods the children have not yet eaten. Such foods might include carrots, broccoli, celery, yellow turnip, and other vegetables.

Have pupils prepare fruited milk drinks, cocoa, cream soups, a creamed vegetable, junket, and custard to build favorable attitudes toward milk and milk foods. Usually the children enjoy preparing the food so much that they will all taste it. They may be invited to copy the recipe and take it home to their mothers. In some schools, a mobile kitchen which can be wheeled from room to room is available. In others, classes are permitted to use the home economics room at specified times.

Snack Time

Let children prepare tastes of fruits and vegetables with which they are unfamiliar. These may be served at snack time with their milk.

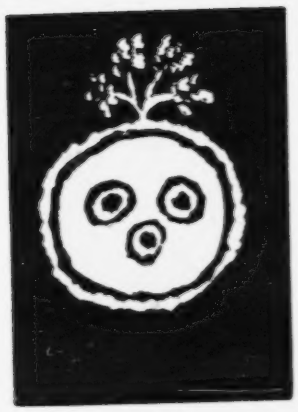
Examples: celery sticks, cauliflower flowerettes, green pepper rings, cabbage wedges, apple slices, fruit wedges.

Introduce other healthful foods to eat with milk for snacks.

Examples: whole grain wafers, popcorn, cheese cubes on colored toothpicks.

Assist children in combining foods with milk for variety in taste and color.

Refreshments for the party are part of the festivity. Each child makes part of his own refreshment.



Halloween Menu

Jack-o-Lantern Sandwich

Milk or Apple Cider

Spread a round of whole wheat bread with softened yellow cheese or grated raw carrot moistened with salad dressing or orange juice. Decorate the jack-o-lantern with eyes and nose of raisins. Put on a cap of parsley or watercress.

Christmas Menu

Santa Apple or Candlestick Salad

Hot Cocoa

Put a marshmallow head on a bright red apple for Santa. Make a belt of orange rind. Or use a pineapple slice for the candlestick holder. a half banana for the candle, and cherry on top for the flame. Whipped cream may be added if desired.

Valentine Menu

Open-faced Cream Cheese Sandwich

Strawberry Milk

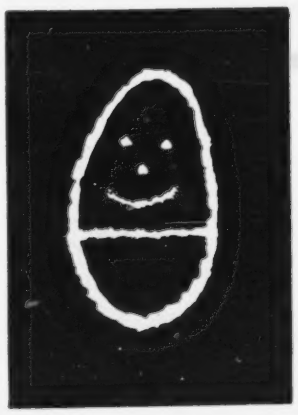
Cut a valentine shape from enriched bread. Spread with softened cream cheese and decorate with pink-colored cream cheese from a cake decorator. For the strawberry milk, strained frozen strawberries are mixed with milk for flavor and color.

Easter Menu

Vegetable Easter Basket

Fruit Juice or Milk Punch

Arrange a large bowl or basket of mixed vegetables, such as carrot strips, turnip slices, green pepper rings, cauliflower flowerettes, and wedges of red cabbage. Each child decorates his small Easter Basket (a 4-oz. soufflé cup) and fills it from the bowl or basket, cafeteria-style. Milk punch is made from lime or orange sherbet and milk mixed together (1 pt. sherbet to 1 qt. milk). Glass cups add to the festivity of this drink, but the 4-oz. soufflé cups may be used for both the basket and cups.

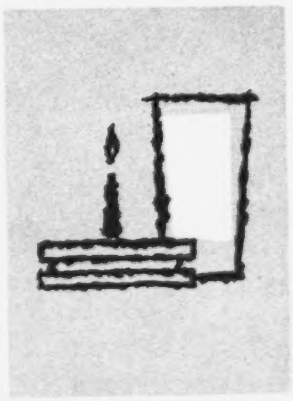


or

Humpty-Dumpty

Tomato Milk

Cut a wide slice from the large end of a hard-cooked egg. Insert a thin pickle slice for belt. Add eyes and nose of carrot bits to make Humpty-Dumpty. Tomato milk is made by adding cold tomato juice slowly to the cold milk. Season with salt, and serve in paper cups.



Birthdays

Children enjoy selecting their favorite milk beverage or fruit juice as their special birthday privilege. Suggestions for other refreshments are open-faced cheese sandwiches, fresh fruit and vegetables, salads, and fresh vegetable sandwiches.

The School Lunch

Learning to eat a variety of foods prepared in a somewhat different way in the school lunchroom, or adventuring with new foods packed and brought to school for lunch is a real learning experience.

Tasting a new food is the way to learn to like it. Classroom experiences may include the preparation of a food which is different and perhaps hard to accept.

Example: On a field trip to study the grocery store—or the local garden—purchase an unfamiliar vegetable and bring it to school to cook at a tasting party. A large green bunch of broccoli might be proudly carried back to school and prepared with the assistance of a homemaking class. When the broccoli appears on the menu for lunch the following day, the interesting class experience will go a long way toward helping the children to accept it and will also interest others in accepting it. If the class can assist in planning the menu to include a newly discovered food, that too will help many to accept the food.

Copies of menus planned by certain grades and distributed to all other grades will help with the acceptance of new foods.

Atmosphere adds greatly to the enjoyment of lunches brought from home. An attractively set table in the classroom at lunch time for those who bring their lunches can stimulate interest in better planned and prepared lunches. Occasionally, a new and interesting

lunch food brought by the teacher in her packed lunch will greatly stimulate interest among the children. Pride in a well-planned lunch can be stimulated through sharing ideas of "Things we like in our lunches." Copies of charts developed in class can be sent home for parents to share.

Discuss with your group such topics as what constitutes good habits in the lunchroom, washing hands, selecting proper amounts of food, and good table manners. Talk about when to eat candy and snack foods.

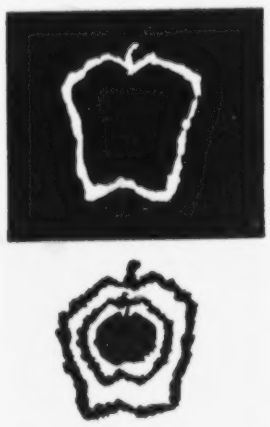
Teachers should set good examples in food habits and table manners.

Growing Vegetables in the Classroom or in the School Garden

Planning and caring for a garden may interest pupils in helping to care for a home garden. It may help to develop a favorable attitude toward eating vegetables.

Play Meals

First-grade children may set up a play house with a kitchen where play meals may be prepared with cutouts or food models. Children will learn the importance of planned and regular meals.



ACTIVITIES FOR THE INTERMEDIATE LEVEL

The strengthening of good eating habits should continue to be an objective of health teaching in the intermediate grades. At this level, children are much more curious about the "why" and "how." Teachers can capitalize on this interest by emphasizing the effects of different foods on growth and well-being.

Since these children want to know why things happen, simple scientific experiments as to the composition and chemical properties of foods can be done. They want to know how people lived and worked in the past, as well as the present. Many relationships with food and food production exist. They will be interested in making school and community surveys relating to food and food consumption.

It is important that teachers emphasize the Four Food Groups and their general functions without discussing specific nutrients such as vitamins, minerals, carbohydrates, proteins, and fats. Children in the intermediate grades are not ready for technical terms and concepts. General groupings such as the Four Food Groups are more meaningful to them. The more technical information may be reserved for the upper grades.

Simple Tests To Learn About Food

Children can be encouraged to ask questions about food which can be answered by simple tests.

Is food a fuel? Small bits of dried foods can be held with forceps in the flame of a Bunsen burner, alcohol lamp, or gas or oil stove to show that foods burn. It should be noted that this burning is more rapid than that which takes place in the body and that some foods burn more easily than others. Fats burn longest, raising questions as to the values of fatty foods.

Does food contain water? A mirror or piece of glass held over food being heated will show droplets of moisture. Food cut into small pieces and dried may be weighed before and after drying. Children are usually surprised at the large amounts of water contained in familiar foods.

Planning Meals

Planning meals is an excellent way to put action into learning about food. Boys and girls often help to plan and prepare meals at home, and school activities may encourage children to "carry over" attitudes and understanding.

Lunch

Lunch is a good meal to begin with, considering such questions as: How can we choose a good lunch at the lunchroom? What foods make a good packed lunch? What are the best sandwich fillings? What raw or cooked fruits and vegetables could be included? The following pattern might be considered: Milk, a milk soup, or cocoa made with milk; bread with butter or margarine; meat, fish, eggs, or cheese; fruit or raw vegetable.

Suggestions for packing a lunch might be duplicated for the children to take home. Favorite home recipes might be exchanged.

Have pupils discuss best buys at the lunchroom and the pro and con of sweets and of soft drinks.

Have the class observe the eating habits of pupils in the lunchroom and make a survey of foods rejected and wasted.

Make plans for decorating the school lunchroom with murals, displays, posters, and flowers.

Plan and distribute lunch menus with the advice of the lunchroom manager. The fifth grade might plan one meal a week; the sixth grade another, etc.

Plan a "food of the week" campaign to introduce new foods or those seldom eaten.

Demonstrate good table manners.

Plan a Spanish menu, French menu, Italian menu, etc.

Appoint a committee of pupils to hold regular meetings with the school lunchroom manager.

Make illustrated menus for holidays and seasons.

Evaluate the results of activities to improve lunch selection.

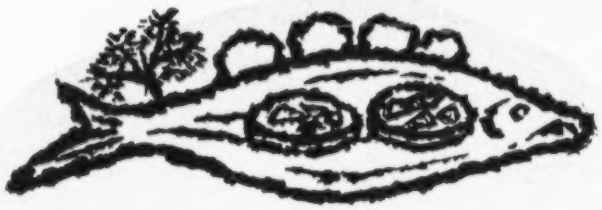
Breakfast

Breakfast is often a neglected meal. Discuss the contents of a good breakfast in accordance with the requirements of the Four Food Groups. Consider why children sometimes omit breakfast and discuss reasons and make suggestions for improvement. A group decison may be very effective. Make an occasional check on breakfast habits to encourage children to continue good practices.

Planning three meals which will follow the plan outlined in the Four Food Groups is a desirable experience. Food models may be used for a graphic presentation of meal selection. Exhibits of good meals might be displayed or demonstrated for parents. Foods should be used which are available and familiar to the children.

Food Preparation

If a mobile kitchen, or the lunchroom kitchen, is available, children may gain experience in serving foods in appetizing ways. They may bring favorite recipes from home to try out and prepare a "cookbook" for their own and family use. Pupils may cook and eat a well-planned breakfast or lunch at school. Parents may be invited to come to school for a party.



Buying Food

Many children have money to spend for lunches and snacks. Discuss how such money should best be spent.

Consider buying problems when pupils are serving a meal at school, or visiting a grocery store, or planning a food budget for a day. Such problems can be included in arithmetic classes.

Investigate the labels on food packages to discover cost per serving, as well as to find out what can be learned from them.

Compare costs of buying food in different quantities—for example, costs of buying five pounds of sugar or ten pounds of sugar, etc.

Selling Food

When children decide to earn money for a worthy purpose, food may sometimes be sold. Instead of candy, apples or some other plentiful local fruit might be sold. Ready-to-eat raw vegetables which are packaged by the children are another possibility.

Producing Food

Planning and caring for a school garden is excellent experience, since it may interest pupils in caring for a home garden, in studying comparative value of vegetables and fruits, and in developing a favorable attitude toward preparing and eating vegetables.

Pupils may report on experiences with home gardens.

Working with Parents

Changes in food habits are most likely to result when teachers and parents work co-operatively on food problems. Parents are interested in maintaining the health of their children and are eager to co-operate in establishing desirable habits.

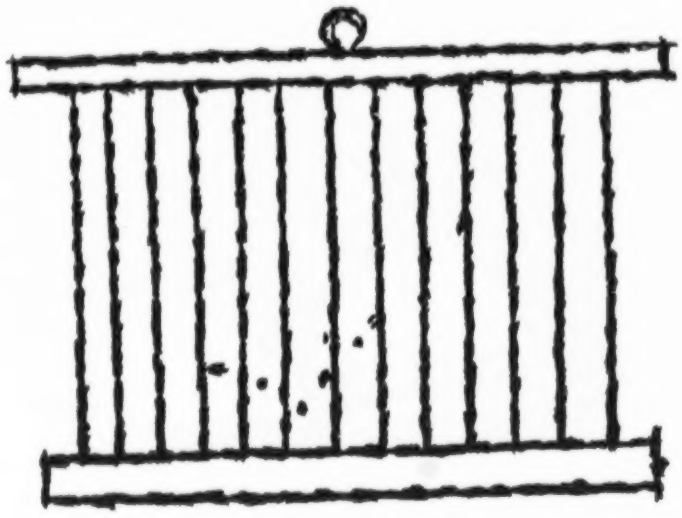
Teachers should help children to explain nutrition activities to their parents. This procedure will not only help children to reinforce their own learnings, but will keep parents informed. Parents might be invited to school on a number of occasions to observe nutrition activities, such as meal planning demonstrations, animal-feeding experiments, talks prepared by children, or just for refreshments in the lunchroom or classroom. News notes or letters taken home are ways of keeping parents informed.

Field Trips

Many interesting field trips can be associated with nutrition teaching. Pupils may visit—as a class or in smaller committee groups which later make oral or written reports—such concerns as wholesale markets, packing establishments, dairies, bakeries, farms, mills, and the like. Written requests for parents' permission for such visits should be prepared and sent well ahead of time by pupils. Before such a trip, questions to be answered and observations to be made should be outlined in written form. Upon returning, discuss and evaluate the trip.

In visiting restaurants or food stores, discuss sanitary handling and serving of food.

Some pupils will enjoy making a scrapbook or a model of activities observed on field trips.



Newspapers, Magazines, Radio, and Television

Pupils may bring to school pictures and stories about food for the bulletin board.

Pupils may keep lists of foods they see on TV or hear about on radio which are new to them.

Pupils may write programs for "television" to be presented to other classes at an assembly program or to parent groups.

Animal - Feeding Demonstrations

Animal-feeding demonstrations are effective teaching procedures because they are dramatic and interesting, and because they show that "food makes a difference" in a striking and convincing manner. In the intermediate grades, such demonstrations are highly successful because boys and girls at these ages are interested in animals and experiments and are impressed by the results of feeding good and poor meals.

Planning for an animal-feeding demonstration involves consideration by the pupils and teacher of what animals to use (white rats are perhaps the best animals for this purpose); where to get them (universities, health departments, dairy councils, or biological supply houses); how to house them (bulletins are available from the National Dairy Council, the Wheat Flour Institute, and from health departments, for example); how to care for them; and what they should be fed. Children may be formed into special committees for the project. Progress should be reported frequently to parents and other classes by means of graphs and by showing the animals.

Rat-feeding demonstrations may require 6-8 weeks to show a desirable degree of diet contrast. There are numerous types of diets which will show the effects of poor food on health and growth. Before beginning such an activity, consult the principal and such personnel as the school nurse, the home economics teacher, science teacher, or other teachers who have conducted animal-feeding demonstrations. In addition, read carefully a bulletin such as *Animal Feeding Demonstrations for the Classroom,* prepared by the National Dairy Council, Chicago 6, Illinois.

Any evaluation of success in nutrition teaching must involve more than a check on the food facts which pupils have learned. Teachers must also consider what habits have been learned, what attitudes and understandings have been developed. You will want to evaluate fact-teaching by tests, records of food selection, and increased interest in food. You can evaluate attitudes by observation of habits and discussion. You can evaluate habits of food selection by observation, lunchroom surveys, and parent surveys or conferences.

Resource Material

TEACHERS WILL FIND *many source materials on nutrition available from their state departments of health, state education departments, state departments of agriculture and the Government Printing Office (Washington 25, D. C.). Some additional sources are listed below:*

MATERIALS

American Bakers Association, 20 N. Wacker Drive, Chicago, Ill.
American Dental Association, 222 E. Superior, Chicago 11, Ill.
American Dietetic Association, 620 N. Michigan Ave., Chicago, Ill.
American Home Economics Assn., 1600-20th St., N.W., Wash., D. C.
American Institute of Baking, 400 E. Ontario St., Chicago, Ill.
American Medical Association, 535 N. Dearborn St., Chicago, Ill.
Borden Company, 285 Madison Ave., New York, N. Y.
Carnation Company, Box 2035, Los Angeles 36, California
Cereal Institute, 135 S. LaSalle St., Chicago 3, Ill.
Equitable Life Assurance Society, 393-7th Ave., New York, N. Y.
Evaporated Milk Association, 228 N. LaSalle St., Chicago, Ill.
General Mills, Inc., Minneapolis 1, Minnesota
John Hancock Mutual Life Insurance, 200 Berkeley St., Boston, Mass.
H. J. Heinz Company, Pittsburgh, Pa.
Kellogg Company, Battle Creek, Mich.
Merck and Company, Rahway, N. J.
Metropolitan Life Insurance, 1 Madison Ave., New York 10, N. Y.
National Dairy Council, 111 N. Canal St., Chicago 6, Ill.
National Livestock & Meat Board, 407 S. Dearborn St., Chicago, Ill.
Pet Milk Company, Arcade Building, St. Louis, Mo.
United Fruit Company, 1511 K St., N.W., Washington, D. C.
Wheat Flour Institute, 309 W. Jackson Blvd., Chicago 6, Ill.

FILMS AND FILMSTRIPS

Cereal Institute, 135 S. LaSalle St., Chicago, Ill.

Bill's Better Breakfast Puppet Show, 16mm, color, 25 min., 1955. Kindergarten, primary.

Skimpy and a Good Breakfast, 37 frames, color, 1957. Primary.

Coronet Instructional Films, Coronet Building, Chicago 1, Ill.

Alexander Learns Good Health, 16mm, B&W or color, 11 min., 1956. Kindergarten, primary.

Food That Builds Good Health, 16mm. B&W or color. 11 min.. 1951. Intermediate.
Good Eating Habits, 16mm. B&W or color. 11 min.. 1951. Primary. intermediate.
Mealtime Manners and Health, 16mm. B&W or color. 11 min.. 1951. Primary. intermediate.

Encyclopedia Britannica Films. 1150 Wilmette Ave.. Wilmette, Ill.
Eat for Health, 16mm. B&W or color. 11 min.. 1954. Elementary.
The Food Store, 16mm. B&W or color. 13 min.. 1957. Primary.
Your Food, 16mm. B&W or color. 13 min.. 1953. Intermediate.
Food, 6 filmstrips. 48 frames each. color. 1956. Primary. intermediate.
Foods for Health, 41 frames. color. Primary.
Proper Food, 45 frames. color. Primary.

Gateway Productions. Inc.. 1859 Powell St.. San Francisco. Calif.
Whaffor Series (about the importance of protective foods). 16mm. color. 10 min.. 1954. Primary. elementary.

National Film Board of Canada. 680 5th Ave.. New York. N. Y.
What Is Nutrition? 35 frames. color. Primary. intermediate.

Society for Visual Education. 1345 Diversey Parkway. Chicago. Ill.
Let's Have a Party, 43 frames. color. 1956. Primary.
Right Breakfast, 40 frames. color. Intermediate.

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